REMARKS

Applicant appreciates the thoroughness with which the Examiner has examined the above-identified application. Reconsideration is requested in view of the amendments above and the remarks below.

Drawings objections

The Examiner has objected to the drawings for failing to comply with 37 C.F.R. § 1.84(p)(5) because they include reference signs not mentioned in the description; to wit, reference sign 94 in Fig. 2 and reference sign 120 in Fig. 3. Applicant has amended pertinent paragraphs of the Specification to include these reference signs. Applicant respectfully submits that the drawings are now supported fully by the specification, and are in a condition for allowance.

Rejection under 35 U.S.C. § 103

Claims 1-15 stand rejected under 35 U.S.C. § 103 as being obvious from Vahalia, et al., U.S. Patent No. 6,298,386, in view of IBM Technical Disclosure Bulletin Vol. 40, No. 5, May 1997. Applicant respectfully traverses this rejection.

Vahalia teaches a collector queue that combines messages from the connection oriented process with messages from the other concurrent processes. Each entry of the collector queue includes a message pointer and a pipe pointer. The message pointer points to allocated memory storing the message in a message buffer. The pipe pointer points to the pipe from which the message originated. Importantly, Vahalia's collector queue is a singly linked list that is serviced on a *first-in, first-out* basis. Vahalia, col.18, ll.51-52. The instant invention is not as restrictive.

Vahalia does not teach, disclose, or suggest a ferris-wheel queue. The ferris-wheel queue allows

multiple processes to have access to the queue in an interleaving fashion.

> The 'Ferris-Wheel Queue' data structure supports the buffering of data generated
> by multiple processes being executed in a single multiprocessing system. *The
> multiple processes may each access this queue in an interleaving fashion*, without
> the data being combined with data of other processes.

Specification, p.8, ll.6-9 (emphasis added).

Some queues in the prior art rely on a queuing order of first in-first out (FIFO) or first in-

last out (FILO). A ferris-wheel queue, as designed and operated, does not perform in either a

FIFO or FILO manner. In Fig. 1 of the present invention, the ENQUE 70 feeds ferris-wheel

buffers 18 of various priorities.

> The buffer is a heterogeneous two dimensional array constructed as a circular
> array of specific message structures. The first dimension of the array is a circular
> wheel. The wheel is the portion which contains the seats. The wheel has
> supporting software to support the implementation of a standard circular array.
> The seats are a collection of message structures which provide a data buffer for
> each seat, and a set of control variables which define the data status of the seat.

Specification, p.8, l.25-p.9, l.2.

The present invention accommodates a circular two-dimensional array structure as the

ferris-wheel buffer. Vahalia does not suggest, teach, or implement this type of buffer. Applicant

has amended claims 1, 5, 11 and 13-15 to more distinctly claim the ferris-wheel receiving queue

buffer structure of the present invention to distinguish over the prior art of Vahalia.

The present invention further includes subcomponent processes for enquing and dequing

data into and out of the ferris-wheel buffer.

> The enque process is a set of functions which control putting data into the "Ferris-
> Wheel Queue". The enque process provides a set of sub-element functions called,
> write and gethandle. The write function is the main controlling function, and
> gethandle function controls the allocation of space in the queue to multiple
> processes.

Specification, p.8, ll.20-24.

> The deque is a set of functions which controls removing data from the "Ferris-Wheel Queue". The deque function provides a read function and a senddata function.
> The read function is the main controlling function which performs a Round Robin search in the first dimension of the buffer and maintains the associated control variables of each seat's message structure. The senddata function moves a specified amount of particular data to a designated location.

Specification, p.9, ll.3-8.

Applicant as further added new claims 16-18 to more precisely claim the ferris-wheel receiving queue and functions for enqueing and dequeing listed above.

It is respectfully submitted that the application has now been brought into a condition where allowance of the entire case is proper. Reconsideration and issuance of a notice of allowance are respectfully solicited.
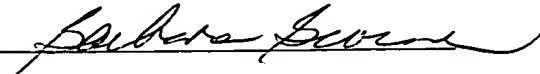
Respectfully submitted,

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